

# **D C B   W E B   P A G E   T E A M**

## **Working Paper #8**

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## **OUTLINE OF PROCEDURE AND POLICY RECOMMENDATIONS**

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Below is an outline of the key procedures and policies that are required to effectively establish and maintain the DCB web site. It is intended to serve as a guide for developing mechanisms by which the development of content for and maintenance of the DCB web site is integrated into the normal operations of the branch. This is absolutely critical in keeping the site current and relevant to the ongoing activities of the branch and the critical success factors (CSF's) of the LaRC Strategic and Quality Framework (SQF).

Note that this outline, though fairly detailed, should be viewed as a starting point for a comprehensive plan for making the DCB web site integral to the daily business of the branch.

### **I. Editorial Policies and Procedures**

#### ***A. Site Supervision***

An editorial committee should periodically (perhaps biannually) survey the entire site to assess the degree to which it is achieving its purpose of supporting the CSF's of the SQF. This should include the appearance and functionality of the site, user comments and statistics, the content itself, and the way the site is implemented including server software and hardware, file structure, and scripts.

The committee should be representative of the branch including both administrative and technical staff.

## **B. Content Control**

An editor should be responsible for obtaining approval for all content added to the site. The branch head has ultimate responsibility but may choose to delegate the responsibility of reviewing submissions. The editor may also request the development of content to support the site.

## **C. Content Appearance and Functionality**

An editor should be responsible for assuring that all content satisfies the minimal standards for appearance and functionality. All content should conform to standard formats and styles approved by the editorial committee. A style guide should be available that describes the recommended formats and styles.

## **D. Content Development and Submission**

The development and submission of content should be integrated into standard branch office functions. In most cases the individual researcher will be responsible for providing the content in the appropriate format(s). However, resources and mechanisms for making the content web-compliant will be provided. The content should contribute to Customer, Stakeholder, and Organizational Value.

### **1. Mechanisms**

Standard administrative forms and published procedures and policies should be amended to include the web content requirements where appropriate.

### **2. Publications**

Publication procedures should be modified to include the automatic development of web site content. The content development is the responsibility of the individual researchers.

- Highlights - All publication highlights should be in formats that are conducive to publication on the web. The web should be considered the primary distribution point for publication highlights. (A format for highlights should be included in the style guide.)
- Bibliographies - The individual's and branch's web-based bibliographies should be updated to reflect all new publications.
- Papers and Reports - The actual paper or report should be accessible via the web either from the DCB web site or from LaTRS.
- Supplemental Content - Additional content related to the publication should be made available via the web. These might include demos, computer codes, numerical models, experimental data, animation, videos, and sound.

### **3. Products**

All branch products conducive to publication via the web should be made available. In cases where the actual products are not conducive to publication or otherwise inappropriate for general dissemination (e.g., proprietary, confidential, LERD) their descriptions should be published on the web along with information on how to obtain them. The content development is the responsibility of the individual researchers.

#### **4. Weekly Highlights**

Key branch activities that currently appear as weekly branch and division highlights should be published on the web and used as the primary means of disseminating this information. The content development is the responsibility of the individual researchers.

#### **5. Noteworthy Accomplishments and Events**

Any individual or team accomplishment such as awards, promotions, patents/licenses, and invitations, and important events such as meetings, workshops, and conferences should be published in a timely fashion in the What's New @ DCB area. The content development is the responsibility of the individual researchers, team leaders, and branch management.

#### **6. Key Ongoing Activities**

Branch involvement in ongoing programs and projects should be represented on the web site in a sufficiently general form that an interested, semi-technically literate reader could understand and appreciate the contributions of DCB to the activity. The general descriptions should lead to progressively more detailed and technical information ultimately leading the reader to the specific technical information and products resulting from the activity. This should be a duty of the level 3 manager for that activity or a designee thereof.

#### **7. Biographical Information**

A minimal set of biographical information will be available for each DCB staff member. The types of information that will be required should be specified by the editorial committee and reflect the need to support the CSF's of the SQF. Such information might include title, education, recent and current work responsibilities and accomplishments, contact information, and bibliographies. Additional information could be included at the discretion of the individual staff member such as photographs, hobbies, professional societies, and links to related professional and personal information (previous employers, educational institutions, associates and colleagues, etc.). The content development is the responsibility of the individual researchers.

#### **8. Introductory and General Information**

In order to acquaint the new visitor with the organization and the web site introductory materials should be available. This is a key aspect of achieving Customer and especially Stakeholder Value from the site. The introductory information should, in simple terms, describe the mission of the branch and the basic elements of our technical discipline. This information might be presented in a "Welcome" section of the web site with additional information such as a glossary, FAQ's, related links, and cool stuff (pictures, videos, animation, demos, etc.). Branch management should be responsible for the development of this information.

#### **9. Organizational Information**

So as to acquaint the serious visitor with the organization detailed organizational information should be available. This is a key aspect of contributing to Customer Value. The organizational information should include detailed descriptions of the types of research and development performed and supported by the branch

(both currently and in the past), staff rosters including permanent employees, visitors, students, and on-site contractors, physical directions and maps locating the branch geographically, organizational charts locating the branch in the Center organization, and descriptions of the facilities the branch manages and of which it makes frequent use. Branch management should be responsible for the development of this information.

## **10. Opportunities in DCB**

Some visitors may be interested in research, educational, and/or employment opportunities in DCB. Appropriate information should be provided to provide to them.

- **Sponsored Research** - This should include potential research areas, funding information, application information and links, current and passed sponsored research projects, contact information and so forth.
- **Cooperative Education** - This should include examples of coop tasks (past, current, and proposed), names and contact info for previous DCB coops, links to the coop office, past coop reports, and possibly even evaluations.
- **Fellowships** - This should include fellowship and similar opportunities to spend time working in DCB (such as ASEE and NRC) and fellowships and similar opportunities for DCB folks to work elsewhere (e.g., Thompson and Sloan) along with links to the appropriate organizations.
- **Employment** - This should include information about the qualifications and background appropriate for employment in DCB, announcements of current opportunities, and links to the appropriate offices and organizations (e.g., LaRC Human Resources).

The branch office should be responsible for developing this content.

## **11. Navigational Information**

- **Navigation Bars and Icons** - A consistent set of navigation tools should be incorporated into the style guide to make navigation throughout the site reliable and consistent.
- **Site Map** - A graphical representation of the entire site should be available to facilitate navigation and understanding of the structure of the site.
- **Index** - A hyperlinked index should be available that assists the user who is interested in a specific area or term to locate the pertinent page(s).
- **Outline Strip** - An outline strip should always be available to assist the user to quickly navigate around the site.
- **Search Engine** - A large portion of the site should be searchable to assist the user to locate pages associated with specific terms of interest.
- **Related Links** - A catalog of links to sites with closely related content should be available to assist visitors to find additional information of interest. The specific links should be recommended by all branch staff to the editorial committee for consideration.
- **Modification Log** - A log of changes to the site should be available to assist the frequency visitor in determining what new content has been added to the site (and what old content has been removed).
- **Recommended Plug-ins or Helpers** - Links to browser plug-ins and helper applications should be provided to assist the visitor in getting maximum benefit from the site by making it easy to configure their systems to access the

content. These links should be strategically placed for maximum effectiveness. The content developer should include the appropriate link(s) within their pages.

The development of these tools is primarily the responsibility of the editorial committee.

## **12. Contact Information**

All content should indicate the responsible individual and provide a means by which that person can be contacted (including e-mail, phone, Snailmail).

## **13. Graphics**

Graphical content should be developed to support the effectiveness of the web site. Standardized elements such as logos, backgrounds, icons, horizontal rules and so forth should be professionally developed where appropriate. The standardized graphical elements should be included in the style guide for the benefit of those developing content.

# **II. Content Development Mechanisms**

There are many means by which content can be developed for publication on the web. The mechanism of choice depends on several factors -- the intended application of the information, the experience of the developer, and the size and form of the content. Several mechanisms for developing web content should be available to the staff to reduce the barriers to contributing content, to make the development process as efficient as possible, and to make maximum use of the appropriate technologies. Below are several of the current means by which content can be developed.

## **A. Raw HTML**

The development of web content ultimately involves the development of HTML code. The lowest overhead mechanism to generate the content is to use a text editor to include HTML tags. This requires fairly detailed knowledge of HTML. Therefore, training should be available to learn HTML and reference materials (e.g., texts and manuals) should be available for self-directed learning.

## **B. HTML Editors**

Another means for developing HTML is to use an editor (e.g., Claris HomePage, Adobe PageMill, PageSpinner, BBedit). These editors provide a WYSIWYG approach to HTML development and greatly speed the process once proficiency is achieved. Access to HTML editors should be given to everyone in the branch. This can be accomplished by hosting one or more of these programs on a public computer.

## **C. PDF Writers**

While HTML is the most versatile way to publish on the web it is not suited for certain applications such as publishing long documents with many figures and/or equations. A popular alternative is PDF (portable document format) which is based on postscript. The flexibility of this format is attractive in that it can be easily generated from any printable document but can also allow web-like enhancements to be added such as hyperlinks and anchors. In addition, free

browser plug-ins and helper applications make it easy to view and print these documents using the web.

- Access to PDF generation capability should be available to everyone in the branch. File generation is accomplished with a chooser extension in Macintosh computers. Everyone should have the extension.
- Enhancements such as hyperlinks are achieved with additional "editor" software. Access to these tools should be made available in a manner similar to that used for HTML editors.

#### ***D. RTF to HTML Converters***

Another way to generate web-compatible documents is to convert word processing files. One conversion method is to save the word processing file in Rich Text Format (RTF) and use converter software to save the file in HTML format. This software should be made available for each staff member. In addition, the style guide should include templates for standard document templates in Word (and possibly other popular word processors) that can be readily converted to DCB web site compatible documents.

#### ***E. Graphics***

The web supports primarily two graphic formats, GIF and JPEG. Since most graphics generated in DCB are not in these formats conversion tools should be readily available. In addition, guidelines for how to best produce and/or convert graphics for publication on the web (i.e., to reduce loading time and minimize file space requirements) should be included in the style guide.

#### ***F. Quicktime***

Animation, video, and audio can be supported on the web using Quicktime. Quicktime generation software is widely available and should be provided to individuals who have specific needs.

#### ***G. Scripting Tools***

Enhancements to basic web documents can be achieved using cgi (common gateway interface) scripts. CGI scripts are needed for interactivity such as imagemaps, forms, and database access. Scripting training, manuals, and tools should be made available as the need is demonstrated.

#### ***H. Java***

An rapidly evolving mechanism for enhancing web-based applications. Support for Java training, manuals, and tools should be made available as the need is demonstrated.

#### ***I. Others***

The means by which web-based content can be developed is a rapidly evolving area. It is recommended that the editorial committee be responsible for regularly surveying the landscape and identifying attractive opportunities to further support the CSF's via the DCB web site.